REMARKS/ARGUMENTS

This Response is being submitted in response to the Office Action dated October 9, 2007. Claims 1-8 and 14-20 are currently amended and Claims 9-13 and 21-22 are original. Claims 1-22 are and remain pending in this application and claims 1-22 stand rejected. Reconsideration and reexamination are respectfully requested.

Rejections Under 35 U.S.C. § 101

Claims 1-8 stand rejected under 35 USC §101, in that the claimed invention purportedly appears to be non-statutory subject matter. Specifically, the Examiner has stated that claims 1-8 stand rejected because the claims purportedly lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 36 USC §101. Applicants respectfully traverse this rejection for at least the reasons discussed below.

Claim 1, as an independent claim, is directed in part to a "computer-readable program code provided in computer-readable storage." Claims 2-8 all depend from claim 1, and are all directed in part to the same basic "computer-readable program code provided in computer-readable storage."

The Examiner states that the claims fail to fall within a statutory category and must define a structural and functional interrelationship between the process or data structure and computer software and hardware components. The Examiner suggests replacing the "computer-readable code" in claim 1 with "a processor executed program code associated to the system controller."

Applicant has hereby amended claims 1-8 in accordance with the Examiner's request. Thus, Applicants submit that claims 1-8, as amended, are allowable. Reconsideration and withdrawal of this rejection is thus respectfully requested.

Rejections Under 35 U.S.C. § 102(b)

Claims 9,10,12-18, and 20-22 stand rejected under 35 USC § 102(b) as purportedly being anticipated by Virgile (U.S. Patent No. 5,608,726; hereinafter "Virgile"). Specifically, the Examiner has rejected these claims in view of various aspects of Virgile. Applicants respectfully traverse this rejection for at least the reasons discussed below.

Applicants' specification and claims disclose and teach a bridge apparatus and methods of operation for use in building automations systems, as taught by Applicants' specification and claimed in independent claims 1, 9, and 14. Virgile, however, does not teach or disclose every element of Applicant's apparatus and method, and lacks critical elements that form an essential part of Applicant's disclosure.

The Examiner appears to state that the systems or methods are identical or substantially identical, and to require that the applicant prove that the prior art products do not inherently possess the characteristics of the claimed product. In re Brown, 459 F.2d 531 (CCPA 1972). As a preliminary matter, the apparatus and methods are different. The claimed apparatus and methods here are specifically intended for implementation in a building automation system. This is not an inherent characteristic of the Virgile system and method, product, which pertains to a "campus network" type of implementation. Note, persons using the Virgile system and method for network bridges on a "campus network" would not inherently be engaged in building automation as provided here. There is thus no inherency from Virgile.

Virgile teaches a different connectivity and bridge structure than that taught by Applicant. Virgile teaches that "each bridge b1-b4 is connected to one or more network segments or collision domains which illustratively are local area networks (LANs)." In Virgile, each bridge may be connected to one or more network segments, but, as illustrated therein, each network segment is connected to only one bridge. The hosts h1-h17 are each connected to a bridge. However, not all of the hosts h1-h17 are connected to more than one bridge. Herein lies the difference between the system of Virgile and Applicant.

Applicant, on the other hand, requires that each building automation device be connected to redundant bridges (Fig. 1; p. 3, para. 0029). The Examiner essentially claims that the building automation devices 110a-h are the analogue of the 'hosts' h1-h17 of Virgile. The purpose of the redundant bridges is to ensure that "if a subnet fault is detected in the subnet, the redundant bridges may also be operated to reroute traffic or messages around the fault. Virgile teaches no such failsafe mechanism.

Contrary to Examiner's assertion that 'Virgile discloses wherein at least one of the bridges connects the subnetwork to the local area network even if the other bridge is offline', there is no way for the subnetwork to connect to certain of the local area network if one of the bridges is offline. For example, if b1 were offline, there would be no way for L1 to be connected to the subnetwork. If b3 were offline, there would be no way for L5, L6, or L7 to communicate with the subnetwork.

Furthermore, if, for example, there were a fault between the b1 and h1-h3 of Virgile, there would be no mechanism for rerouting traffic or messages. There is no secondary or backup bridge in Virgile that would enable access to all hosts in the event of a fault. Applicant's system, on the other hand, is expressly designed for the purpose of allowing continued communication with all building automation devices in the event of a fault.

In order to sustain a rejection under 35 USC 102(b), the cited reference (i.e. Virgile) must teach or disclose each and every element of the claimed invention. Virgile does not teach each and every element of Applicants' claims 9, 10, 12-18, and 20-22. Applicants' claims 9, 10, 12-18, and 20-22 are respectfully submitted to be allowable over Virgile, and Applicants' dependent claims are submitted to be allowable over Virgile because they depend from allowable independent claims.

Rejections Under 35 U.S.C. § 103

Claims 1, 2, 4-6, and 8 stand rejected under 35 USC 103(a) as purportedly being unpatentable over Grube et al (U.S. Patent No. 5,835,485; hereinafter "Grube") in view of Filgate (U.S. Patent No. 6,292,488; hereinafter

"Filgate"). Specifically, the Examiner has rejected these claims, particularly claim 1, stating that "it would have been obvious to a person of ordinary skill in the art at the time of the invention" to "modify the invention of Grube, and use computer readable program code in a bridge, as taught by Filgate, thus allowing computer devices to communicate across data links without expending significant resources for providing link monitoring, as discussed by Filgate." See Office Action of November 9, 2007, page 8, lines 3-7.

Applicants respectfully traverse this rejection for at least the reasons discussed below.

As a preliminary matter, an Examiner taking "Official Notice" of the basic knowledge or common sense of a person of ordinary skill in the art to supplement the specific teachings of the art, must provide some form of evidence in the record to support such an assertion of common knowledge. In re Zurko, 258 F.3d 1379, 1386, 59 U.S.P.Q.2d 1693, 1697 (holding that general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection). Moreover, if the Examiner relies on his or her personal knowledge to supplement what is actually known in the art, the Examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the supplementation. 37 CFR 1.104(d)(2).

The Examiner provides no evidence or affidavit supporting the Examiner's apparent taking of Official Notice and the assertion that Applicant's development would have been obvious to one skilled in the art. In response to this paper, Applicants respectfully request such evidence or affidavit according to rule 37 CFR 1.104(d)(2).

Applicant further traverses the finding that Applicant's development would be obvious to one skilled in the art for the following reasons.

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." **In re**

Kahn, 441 F. 3d 977, 988 (CA Fed. 2006). The law of obviousness requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. See, e.g., MPEP 2143, inter alia; see also In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (concentrating upon what prior art actually 'taught', 'expressed', 'conveyed', and/or 'spoke of').

Combining known prior art elements is not sufficient to render the claimed invention obvious if the results would not have been predictable to one of ordinary skill in the art. United States v. Adams, 383 U.S. 39,42-43, 51-52, 148 USPQ 479, 480, 483-84 (1966) (stating that "[d]espite the fact that each of the elements . . . was well known in the prior art, to combine them as did Adams required that a person reasonably skilled in the prior art must ignore the teaching away of the prior art . . . ."). "When the prior art teaches away from combining certain known elements, discovery of successful means of combining them is more likely to be nonobvious." KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1395 (2007).

Applicant's development concerns a bridge apparatus for use in building automation systems, with various elements, such as in some implementations the redundant-bridge feature, designed to flow the facilitate the uninterrupted transmission of information between and among the elements of the building automation system (claims 1, 9, 14).

Grube is directed to a controller for setting up a dispatch call (abstract), contrary to Examiner's assertion that Grube discloses a bridge apparatus for a building automation system. Filgate is directed to a computer deadlock recovery mechanism for a computer system; also not concerning building automation systems.

Furthermore, Grube is directed to a one-time transmission of information that relies on temporary addresses. As pointed out by the Examiner, Grube does not teach nor necessitate "computer-readable program code in a bridge, as taught by Filgate, thus allowing computer devices to communicate across data

links without expending significant resources for providing link monitoring" (Office Action of 11/09/2007, p. 8, para. 2). Because Grube is directed to a single transmission of information at a time and setting up temporary addresses to facilitate the same, there is no reason to have any computer devices or computer-readable program code in a bridge. The failure to disclose any such computer-readable program code in the bridge limits the teachings of Grube to a system that does not require any computer-readable program code. The invention of Grube appears thus to be inherently unsuitable for use in a system that would require such a feature. In fact, Grube teaches away from using code, instead emphasizing temporariness, speed, and cost-effectiveness. If the code of Filgate were used in the system of Grube, it would undermine the teachings of Grube and its desired features.

Although Grube may teach a communications system, as pointed out in the Office Action (page 7-8), the Examiner fails to point out where Grube teaches concurrently utilizing a computer readable program code in a bridge, or a system controller. It would appear to not be suggested from Grube how to do this.

This situation is not one of simple substitution, nor is it one of a simple 'upgrade'. See, cf., KSR, supra, 82 USPQ2d at 1399 (discussing 'upgrading Asano with a sensor.') Although in recent cases, a simple upgrade was viewed as obvious, see id. (discussing how the Court concluded that it would have been obvious to upgrade Asano's fixed pivot point adjustable pedal by replacing the mechanical assembly for throttle control with an electronic throttle control and to mount the electronic sensor on the pedal support structure) the present invention involves far more than a simple addition, replacement, mounting or an upgrade. The innovation in Applicant's invention consists in part of providing a redundant bridge and implementing numerous adaptations thereof. Simply adding the code of Filgate on top of the system of Grube would fail. Modifications far beyond those taught by Grube and Filgate are required to enable a movable lubricating system.

Moreover, there is no expectation of success from such an alleged modification. See MPEP 2143. Both Grube and Filgate have completely operable devices which expect no modification for their particular type of

success. It would be unexpected for either of the Grube or Filgate systems to be made over or modified to generate a non-suggested system. Grube provides a successful system without suggesting any need for code or a system controller. Filgate does not go so far as to suggest that its otherwise successful system should, would or could be wholly retrofitted and incorporated into, on, or within any other system to create any expectation of success therefore, particularly in a building automation system or other communication system embodiment. There is no such expectation, thus, no suggestion for the asserted modification. No reasonable expectation of success comes from either of those references. See, e.g., MPEP 2143.01, 2143.02.

Furthermore, a combination of references cannot render the combined apparatus or system inoperative, or change the principle of operation thereof, or render it less than satisfactory for its original purpose. See MPEP 2143.01. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) For the reasons given, such would be the case in any asserted combination of Grube with Filgate. Certainly, Grube involves a communications system; however, the Filgate system has no such explicitly-stated component. It is not suggested how the combination of Grube with Filgate would take into account this omission in element and functionality in Filgate. Since this would improperly render each reference inoperable for its original intended purpose, or otherwise improperly change the basis of operation thereof; the combination is improper and the rejection based thereon must be reversed. As in Gordon, supra, the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.

In the instant case, a person of ordinary skill in the art having common sense at the time of the invention would not have reasonably looked to Filgate to solve a problem already solved by Grube. An artisan having common sense at the time of the invention would not have reasonably considered using code nor a system

controller suggested by the Examiner. Thus, Applicants respectfully submit that the rejection of claim 1 on Grube and Filgate falls short. Applicant notes that claims 2, 4-6, and 8 depend from Claim 1. Reconsideration and withdrawal of this rejection is thus respectfully requested.

Claim 9 stands rejected under 35 USC 103(a) as purportedly being unpatentable over Virgile in view of Marbach (U.S. Patent No.6,654,355; hereinafter "Marbach"); Claim 19 stands rejected under 35 USC 103(a) as purportedly being unpatentable over Virgile in view of Filgate. Applicants incorporate their arguments regarding Virgile, supra, and submit that suggesting the additional features of a CAN bus as taught by Marbach or the vacation mode taught by Filgate do not overcome the shortcomings of Virgile as a reference. Moreover, the alleged "vacation mode" of Filgate refers merely to an 'idle' mode (col. 3, line 3) in which the initiator will stay until it can acquire and control both bridges. The "vacation mode" of Applicant's system is literally the function of providing for the building to "appear to be "lived-in" even when the user is not present (e.g., away on vacation)." (p. 6, para. 0067). This involves active states not suggested by a mere "idle" state.

Applicants submit that Applicants' claims 1, 2, 4-6, 8, 3, 7, 9, and 19 are believed to be allowable at least, for the same reasons set forth above for claim 1 in that they contain limitations not taught or suggested by Virgile, Grube, Filgate, or other cited references. Reconsideration and withdrawal of these rejections are thus also respectfully requested.

CONCLUSION

Applicants note that all rejections are obviated or traversed and respectfully request that they thus be withdrawn. A timely Notice of Allowance is requested to be issued in this case. Applicants believe no fees or petitions are due with this filing. However, should any such fees or petitions be required, please consider this a request therefore and authorization to charge Deposit Account No. 02-2093 as necessary.

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Respectfully submitted,

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